

FIG. A -- Compound 15 increases MCIP1 protein expression. Western blot with anti-MCIP1 antibody. Protein prepared from neonatal rat ventricular myocytes exposed to vehicle (DMSO) or compound 15 (10 μM) for 48 hours.

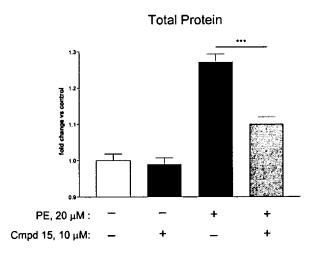


FIG. B -- Compound 15 attenuates phenylephrine-induced increases in total protein. Total protein was measured in neonatal ventricular myocytes exposed to the hypertrophic agonist phenylephrine and compound 15 for a period of 48 hours.

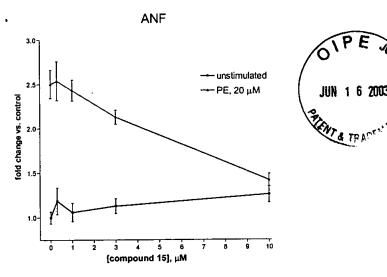
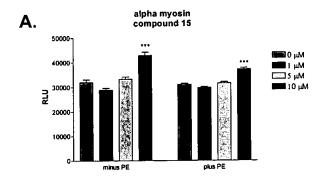


FIG. C -- Compound 15 attenuates phenylephrine-induced increases in secreted ANF. Secreted ANF was measured in neonatal ventricular myocytes exposed to the hypertrophic agonist phenylephrine and compound 15 for a period of 48 hours



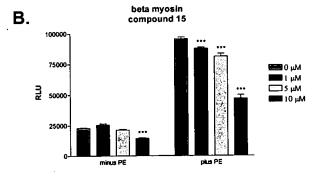


FIG. D -- Compound 15 reverses hypertrophic changes in myosin heavy chain isoform expression in cardiac myocytes. A) Alpha myosin heavy chain expression in neonatal rat ventricular myocytes in the presence or absence of phenylephrine and treated with three concentrations of compound 15. B) Beta myosin heavy chain expression.

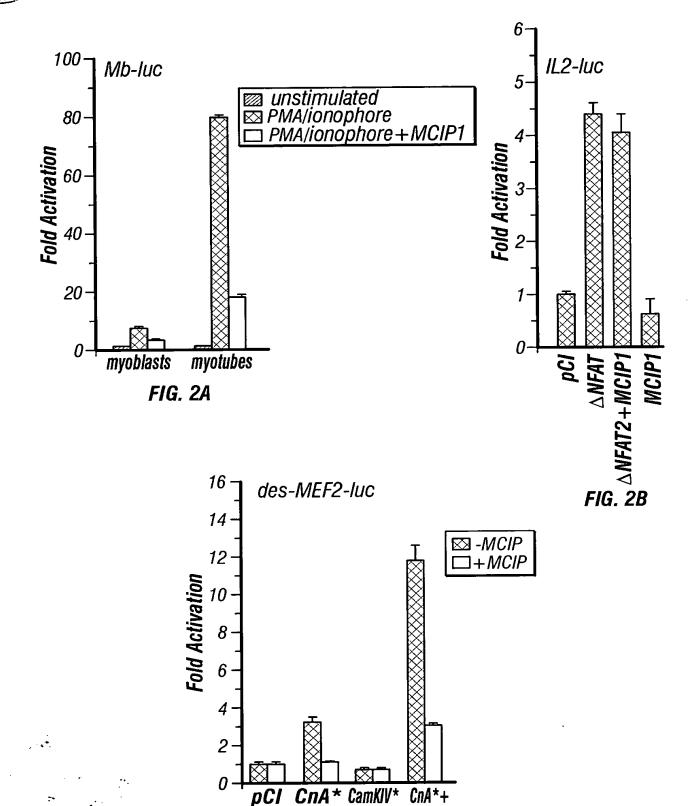


FIG. 2C

CamKIV\*

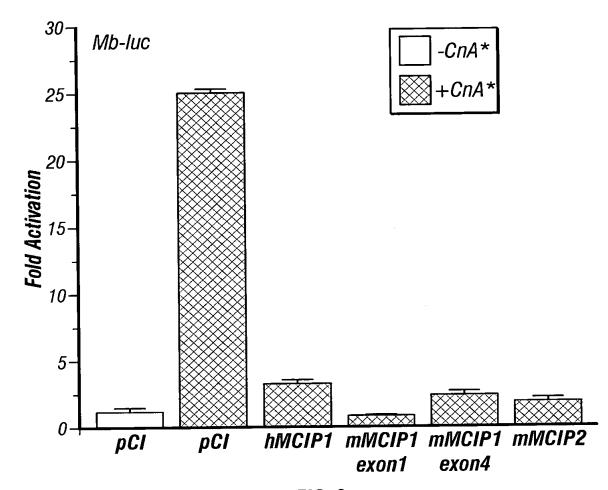


FIG. 3

# METHODS AND CONTROL POSITIONS RELATING TO MUSCLE SELECTIVE CALCIL RIN INTERACTING PROTEIN (MCIP) Inventor(s): Williams et al.

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MCIP1 Binding	Calcineurin A protein  catalytic domain B M	521 aa
++++		
++++	342 aa	
-	266 aa	

FIG. 4A

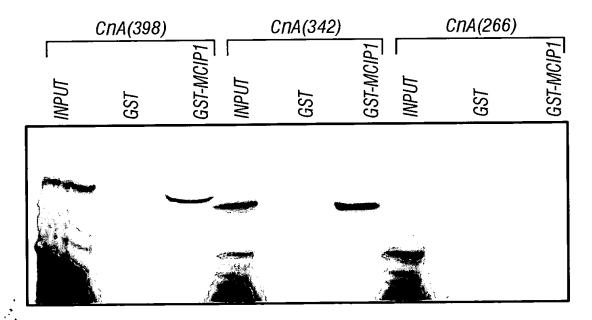


FIG. 4B



# U.S. Serial No. 09/782,953 METHOL ND COMPOSITIONS RELATING TO MUSCLE SELECTIVE CALCINEURIN INTERACTING PROTEIN (MCIP) Inventor(s): Williams et al.

<u>CnA Binding</u> ++++	MCIP1 protein	197 aa 
++	177 aa	
++	——————————————————————————————————————	
+		

FIG. 5A

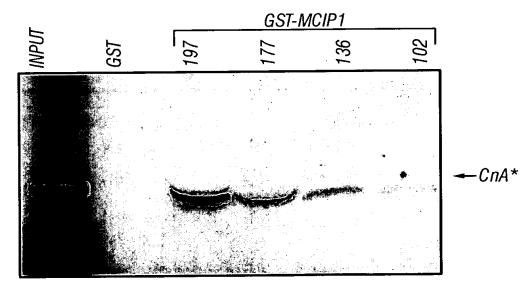
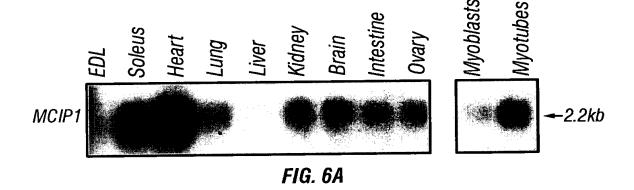


FIG. 5B



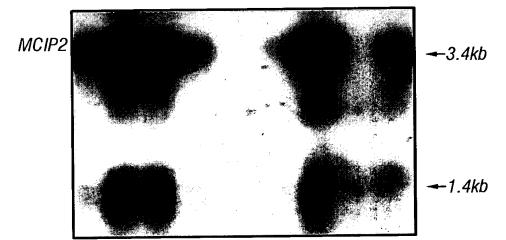


FIG. 6B

Rank	Fold	Gene	Genbank ID
hyperti	rophic α-Mi	HC-CnA* vs. wild-type	
1	8.1	Calcineurin-A	AA245461
2	4.0	ANF precursor type B	AA030805
3	3.3	ANF precursor type A	W14325
4	3.1	sk mus LIM protein (FHL1)	
5	3.0	OSF-2	W81878
<b>→</b> 6	2.7	MCIP-1	AA200984
7	2.7	EST (mouse)	AA110791
8	2.3	MCPSF (Mouse cleavage	AA221269
		and polyadenylation factor)	
failing	α-MHC-Cn.	A* vs. hypertophic $\alpha$ -MHC-	CnA*
1	3.3	Procollagen XV	W83331
2	2.9	0SF-2	`W81878
3	2.8	EST (mouse)	AA124355
4	2.7	Alphà-crystaİlin	AA231358
<b>→</b> 5	2.5	MCIP-1	AA200984
6	2.2	Procollagen III	W89883
7	2.1	p53BP2	AA467287
8	2.1	Calcineurin-A	AA245461

FIG. 7

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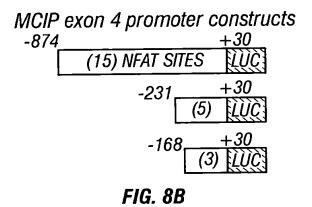
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\	\				
-874			CAAC	CTCTGGCATA	AATGGGTTAA
-850	TGCTTCTTTG	CTCAGTTTCA	AAGGCTAGAT	TGCTCAGTTT	CAAAGGCTAG
-800	TGTTTTTGTA	TCCTTTGCCT	GAATTCTGTA	GTGCTTTGAA	AATGATCGAA
-750	GTGTTTCATA	TCCCCAGTTC	TCAAATTATA	ATAATGAAGT	TTICAAATGA
-700	AAATOCTAGG	ATTGTTTAG	GTTCTGTTTG	CICCAIICCA	CTGTGGGATA
-650	CAAGTAGAAA	TTGGGACATT	CATCCAATAA	AATGTCACTG	GGGAAAAAA
-600	TTTTAACIAC	ACTTCAAAAT	CATTCCTCTT	TTTGTCCTTT	AAAATTTTA
-550	TTGACCAAGA	CAGATTTCAA	AATGTTTTCT	CTAATACCCC	AAAGTGAAAC
-500	TTTGATTGAG	GTTTTCAGGA	AATTCCAGGG	ATCAAGTATG	TCACCCGGAC
-450	TTIGGTTTCC	AGGTTTCCCA	AAGTCTTGAA	ATTTCCCTAC	AGTCTAATTG
-400	CTGTTTATTG	CCACAGACCT	TCATCCTTTT	TCTTTTGTAA	CAITTTCCAI
-350	CTTAAGAAGG	GTCGTCCCAT	TCGGCCGAGG	AGCGTGTTGT	CTGAGTAGCT
-300	GAATGGAATT	ACTACGAGTG	GAAACTATGC	TGCAAGAGAG	GTTGATAAAG
-250	CAGCTGTCAA	GCAAACCTCA	GCTGITTITT	CCATICICCC	CAAGCAAAGT
-200	TAATTAGOAT	AGGGAAAATG	ACTAAGGTGT	TGACGTCAC	TCTTTCCAGI
-150	AGAAACTIAC	ACTTTGTCCC	TGTCTACCTG	CAAGCATCCA	CGACTTGACT
-100	CAGGAATTTG	CTGTCCAAAC	AGGATGCTGT	GGAAGCTGCA	$\mathtt{CTTT}\overline{T}\overline{T}\overline{T}\overline{T}$
-50	<u>CCCCAG</u> GGAG	TGGGGGCTGG	CCCTTACTGC	TTTATAAGCA	CCAGCTCAAG
+	AAGGAACCTA	CAGOCTCTTG	GAAAGGAAT		

FIG. 8A





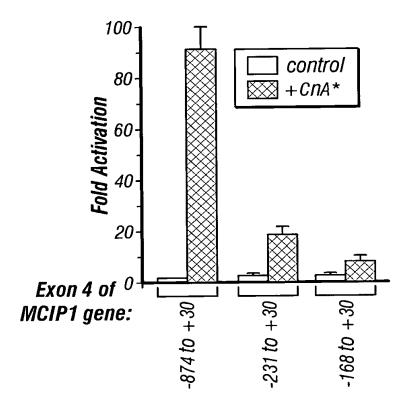


FIG. 8C



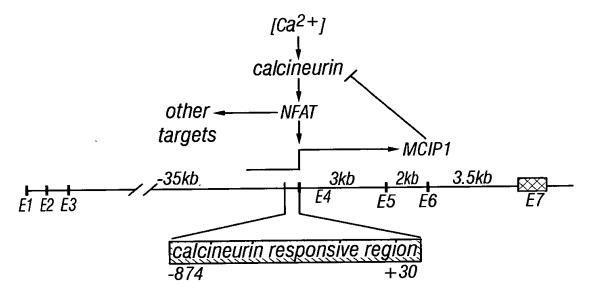


FIG. 9

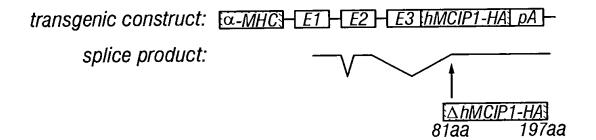


FIG. 10

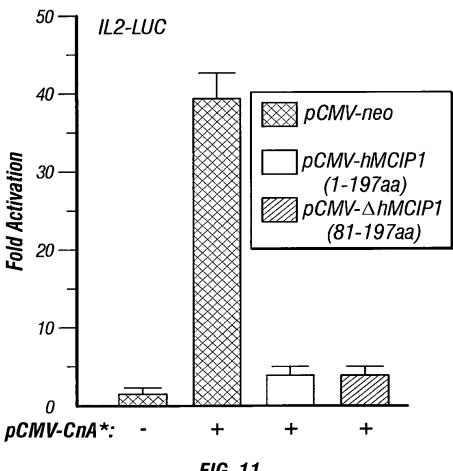


FIG. 11

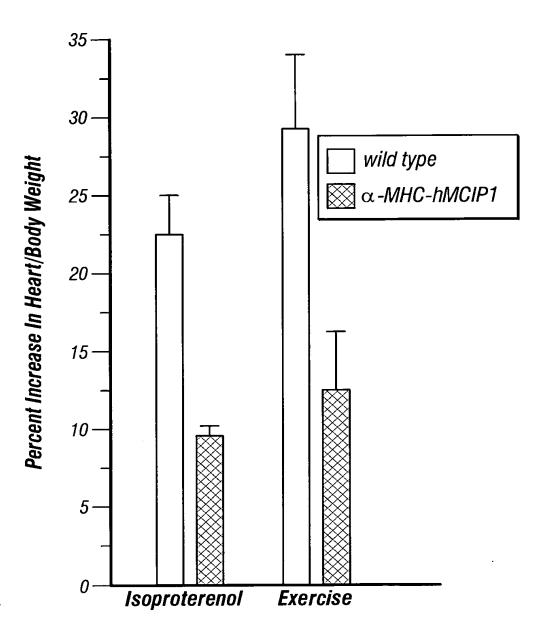


FIG. 12